

Title (en)
Photocatalytic additive for binders

Title (de)
Photokatalytischer Zusatzstoff für Bindemittel

Title (fr)
Additif photocatalytic pour liant

Publication
EP 2316803 A1 20110504 (EN)

Application
EP 10189015 A 20101027

Priority
IT TO20090829 A 20091028

Abstract (en)
The photocatalytic additive comprises a plurality of inorganic particles at least partly coated with a hybrid inorganic/organic coating which can be obtained by means of a process comprising the stages of dispersion of the inorganic particles in an alcohol or ether solvent, addition to the dispersion of at least one organic silicon compound having the formula: in which R and each R 1 separately represent a C 1 -C 8 alkyl, a C 2 -C 8 alkenyl or an aromatic residue which may possibly be substituted with one or more C 1 -C 8 alkyls, or in which R has the same meaning as for formula (I); addition of water and mineral acid to the dispersion to bring about a pH within the range between 0.5 and 3 and the establishing at least one chemical bond between a residue of the said organic compound and the surface of the said particles so as to form the said hybrid inorganic/organic coating; stirring of the dispersion; and separation of a solid phase formed by the said at least partly coated particles from the dispersion.

IPC 8 full level
C04B 20/10 (2006.01); **C04B 28/02** (2006.01); **C04B 111/00** (2006.01); **C04B 111/20** (2006.01)

CPC (source: EP)
C04B 20/1051 (2013.01); **C04B 28/02** (2013.01); **C04B 2111/00827** (2013.01); **C04B 2111/2061** (2013.01)

Citation (search report)
• [XY] JP 2009209250 A 20090917 - TOHO TITANIUM CO LTD
• [Y] JP 2007039286 A 20070215 - SEIKO EPSON CORP
• [A] JP 2007275731 A 20071025 - TOHO TITANIUM CO LTD
• [A] JP H11315275 A 19991116 - TOTO LTD
• [A] JP H10195379 A 19980728 - TOTO LTD
• [A] US 2002010097 A1 20020124 - LINKOUS CLOVIS A [US]
• [A] US 5518992 A 19960521 - LINKOUS CLOVIS A [US]
• [XY] C.DOMINGO,E.LOSTE,J.FRAILE: "Grafting of trialkoxysilane on the surface of nanoparticles by conventional wet alcoholic and supercritical carbon dioxide deposition methods", THE JOURNAL OF SUPERCRITICAL FLUIDS, vol. 37, 2006, pages 72 - 86, XP002571431

Designated contracting state (EPC)
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Designated extension state (EPC)
BA ME

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